Fibre-optic lightpipe light fittings in stainless steel for use in hazardous areas Series fibroLUX E d PowerLED

Stainless steel fibre-optic lightpipe light fitting for use in hazardous areas, type fibroLUX E d PowerLED Sch W2 K2, Ex II 2 G + D, 7 W, 230–240 V AC, fixation of the light source with tilting hinge “Sch”, fixation of the lightpipe by universal support “W2” onto sightglass to DIN 28120, DN 40, PN 10

Stainless steel fibre-optic lightpipe light fitting, type fibroLUX E d PowerLED W W2 K2, Ex II 2 G + D, 7 W, 24 V AC / DC, fixation of the light source with bracket “W”, fixation of the lightpipe by universal support “W2” onto sightglass to DIN 28120, DN 40, PN 10

The stainless steel light fittings for use in hazardous areas of the series fibroLUX E d PowerLED are technically advanced, innovative top products for the brilliant, powerful and continuous illumination of process equipment, typically in the pharmaceutical and chemical industries. Locating the light source away from the sightglass gives scope for the arrangement “light **and** sight through small sightglasses”. With the well known MAX MÜLLER quality, no compromise technology, attention to details and with proven components from our existing range of light fittings, the fibroLUX E d PowerLED series offers the following advantages:

For the purchasing department:

- **Highly competitive price**
- **Short** lead times

For the design or plant engineer:

- **Supreme efficiency**: Light output comparable with a 50 W halogen bulb (with a power consumption of only 7 W)
- LED light source with **life span of up to 40'000 operating hours**
- **The colours of the illuminated products remain “true”**, due to an absolutely white light output (color temperature: ca. **5000 K**)
- **Brilliant, targeted illumination**, even under difficult conditions, due to **focusable light output** and movable lightpipe
- **UV-free and cold light output** at the lightpipe and, avoiding undesired heat emissions towards temperature sensitive media
- **Easy mounting** due to different mounting possibilities and an absence of orientation prescriptions
- Light fittings may be **installed in any position without restriction**
- The system is **designed for continuous operation**, thus allowing uninterrupted observation of the process reaction steps
- **Maximum length of the lightpipe: 5 m**
- ATEX equipment protection level (EPL): Gb (zones 1 and 2) and Db (zones 21 and 22)
- Admitted for ambient temperatures from - 20 °C to + 40 °C

Application:

For use in hazardous areas, mainly in situations where there is insufficient room to fit a “classic” type of sightglass light fitting, where there is only one very small sightglass available for both illumination and observation or in situations where it is desirable to highlight a specific area of a reaction or of the reaction vessel (e.g. for maintenance purposes). Especially recommended for use in sterile environments an clean rooms.

Conditions of service:

The mounting is **independent** of the internal pressure or vacuum of the equipment to be fitted with.

Technical data:

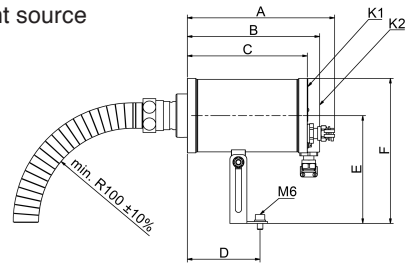
Mode of service:	Continuous service. For timed operation, see overleaf.
Enclosure protection degree:	IP 65 / 67, dust tight and jetwater-proof as well as protected against the effects of temporary immersion to EN 60529 / DIN VDE 0470 part 1
Ignition protection type:	Ex d op is IIC Gb and Ex tb IIIC Db to EN 60079-0 / 60079-1 / 60079-28 / 60079-31
Explosion groups:	IIC / IIIC
Temperature class G / D:	T6 / T80°C
	T_a = - 20°C / + 40°C
ATEX:	Ex II 2 G + D

MAX MÜLLER AG

Europe's largest sightglass light fitting programme!
Perfect, thoroughly engineered solutions from one hand!
Always an interesting, technically advanced idea ahead!

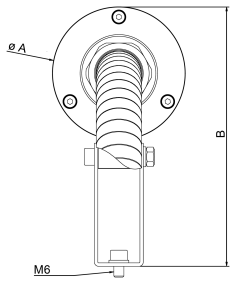
Dimensions
Electrical data
Construction and materials
Additional equipment

Light source



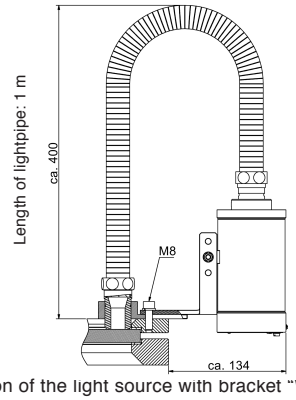
A	B	C	D	E	F
157	141	128	77	114	154

Light source



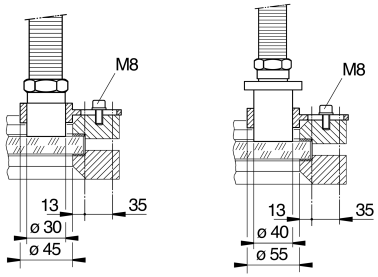
ø A	B
79	154

Lightpipe: Version “flood” or “spot”



Fixation of the light source with bracket “W” on sightglasses to or similar to DIN 28120 / 28121

Lightpipe:
Version “flood”, “W2” Version “spot”, ”W3”



Fixation “W2” / “W3” on sightglasses to or similar to DIN 28120 / 28121

All dimensions in mm. Subject to changes without preliminary notice.

Electrical data:

Supply voltages: 24 V AC / DC or 230–240 V AC
Power: 7 W
Light source: LED module, approximately 40'000 operating hours

Construction and materials:

Compact light source housing and its fixation elements of stainless steel. Marked earth terminal on the outside of the housing. Cable gland M16 x 1,5, vertical (“K1”, standard) or horizontal (“K2”). Light source mounting either with tilting hinge “Sch” or by the customer making an adaptation. Lightpipe designed for optimum light transmission, directly fixed to the light source housing. Lengths of the lightpipe are 0,5 m / 1 m / 2 m / 3 m / 4 m / 5 m, other lengths on request. Light output as a wide beam, “flood” (standard delivery) or with narrow beam “spot” (see additional equipment). Light transmitting fibres protected by a galvanized steel flexible tube, enclosed in a chemical and temperature resistant silicon rubber tube. Lightpipe terminated with a stainless steel ferrule, ground flat and polished for close fit to the sightglass. Minimum bending radius of the lightpipe assembly 100 mm / ± 10%. Fixation of the lightpipe to the sightglass concerned with a stainless steel universal support “W2” or “W3” (for the spotlight adapter), with an M8 screw.

Additional equipment:

Timers: External timer type U3 with polyester resin housing, to be branched into the supply of the light source. (see respective data sheet)

Spotlight adapter “SA”: To produce a narrow focused output beam. Lens holder in stainless steel to be positively positioned on the emitting end of the lightpipe, adjusted in our works. May be removed / refitted, thus allowing either “flood” or alternatively “spot” operation.

Do you wish for more information about our wide range of light fittings for use in hazardous and safe areas, about our range of circular sightglasses to DIN 28120/28121, screwed sightglasses similar to DIN 11851, rectangular or D-ended sightglasses, pipeline flow indicators, hinged sightglasses with or without illumination, centrally or sideways operated wipers, spraying devices, camera systems for hazardous areas or our complete sight and lightglass units VETROLUX? Are you interested in other types, special versions or different protection degrees? If yes, please contact us, our branch office or our local agents – it is our business! You will find the necessary information on our sales network on the Internet.

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